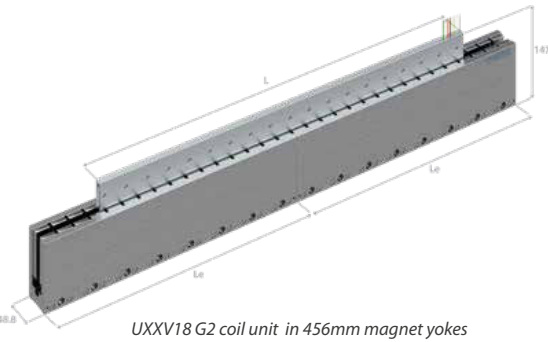


UXXV - G2 ironless vacuum series



UXXV Magnet yoke dimensions

Le (mm)	114	456
M6 bolts	2	8
Mass (kg/m)	26	
<i>Magnet yokes can be butted together</i>		

Approvals



Parameter	Remarks	Symbol	Unit	UXXV6 G2	UXXV9 G2	UXXV18 G2
Winding type				N	N	S
Motor type, max voltage ph-ph	3-phase synchronous		$V_{ac rms} (V_{dc})$	230 (325)		
Peak force @ 20 K/s increase	magnets @ 25°C	F_p	N	1340	2010	2012
Continuous force passive cooled ¹	@ T_{max}	F_c	N	64	94	94
Continuous force active cooled ²	@ T_{max}	F_c	N	233	349	350
Maximum speed ³	@ 325 V	V_{max}	m/s	2.8	2.8	7.7
Motor force constant	coils @ 20°C	K_f	N/A _{rms}	117.5	117.5	47.7
Motor constant	coils @ 25°C	S	N ² /W	562	843	847
Peak current	magnets @ 25°C	I_p	A _{rms}	11.4	17.1	42.2
Continuous current passive cooled ¹	coils @ T_{max}	I_c	A _{rms}	0.55	0.80	1.98
Continuous current active cooled ²	coils @ T_{max}	I_c	A _{rms}	1.98	2.97	7.34
Back EMF ph-ph _{peak}		K_e	V _{dc} / m/s	96	96	39
Resistance per phase	coils @ 25°C ex. cable	R_{ph}	Ω	8.2	5.5	0.9
Induction per phase		L_{ph}	mH	14.2	9.5	1.6
Electrical time constant		τ_e	ms		1.7	
Continuous power loss	coils @ T_{max}	P_c	W	118	176	353
Maximum coil temperature		T_{max}	°C		80	
Thermal resistance	coils to mount. sfc.	R_{th}	K/W	0.51	0.34	0.17
Thermal time constant		τ_{th}	s		153	
Temperature sensor				3xPTC + 1xNTC		
Coil unit mass	ex. cables	m	kg	1.74	2.54	4.95
Coil unit length	ex. cables	L	mm	251	365	707
Motor attraction force		F_a	N		0	
Magnet pitch NN		τ	mm		57	
Lead wire mass	all wires		g		55	
Lead wire type (power, 4x)	length 1 m	d	mm (AWG)		1.75 (18)	
Lead wire type (sensor, 4x)	length 1 m	d	mm (AWG)		0.8 (26)	

All specifications ±10%

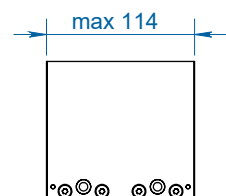
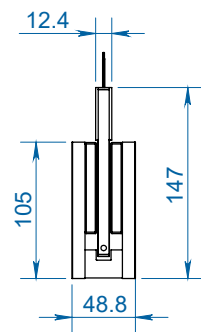
¹ Depends on environmental conditions in the application. Continuous force noted has been determined with a typical thermal resistance value for passive cooling, and a vacuum chamber wall of 40°C.

² Depends on environmental conditions in the application. Continuous force noted has been determined with a thermal resistance of 0.02 K/W and a mounting surface of 20°C when the motor is driven at continuous current.

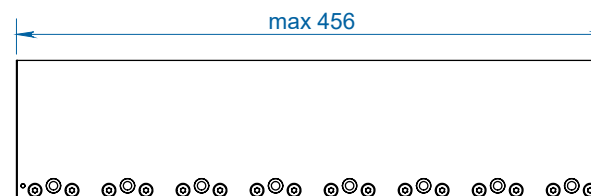
³ Actual values depend on bus voltage.

Magnet yokes

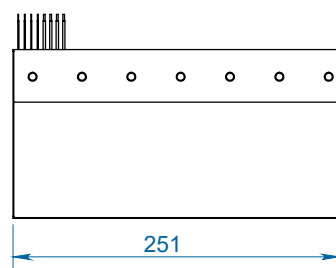
Coil units



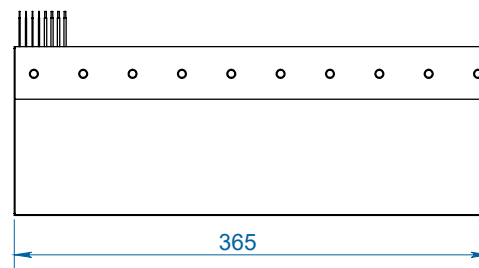
MAGNET YOKE UXXV 114mm G2



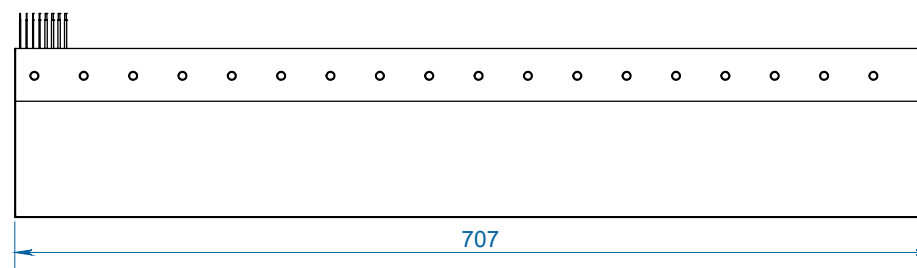
MAGNET YOKE UXXV 456mm G2



COIL UNIT UXV6 G2



COIL UNIT UXV9 G2



COIL UNIT UXV18 G2